

CLAIMS:

1 – 24. Cancelled.

25. (Amended) A method of resolving logical relationships in an IMS database system, the method comprising the steps of:

correlating and ordering [[according to the method of claim 5,]] present and future relative addresses for plural segments in a dataset under reorganization;

scanning a database to determine for a selected segment, whether that selected segment participates in a logical relationship with a segment in the dataset under reorganization;

upon finding a segment that participates in a logical relationship with a segment in the dataset under reorganization, comparing the logical pointer of the found segment with the correlation of present and future relative addresses for plural segments in the dataset under reorganization to find the present relative address that corresponds to the logical pointer of the found segment; and

upon finding the corresponding present relative address, replacing the logical pointer of the found segment with the future relative address that is correlated with the corresponding present relative address.

26. (Amended) A computer-implemented method for improving the physical to hierarchical correspondence for a plurality of segments in a dataset of a hierarchical database, the method comprising the steps of:

determining in a first selected algorithmic order, a future relative address of each of the plural segments in relation to a database location if the segments were to be positioned sequentially according to the selected first algorithmic order, the selected first algorithmic order being expressive of a selected hierarchical relationship of the plural segments;

recording the determined future relative address of each of the plural segments;

recording the present relative address of each of the plural segments;

replacement of the present relative address with the determined future relative address for each of the plural segments;

correlating the present and determined future relative addresses for each of the plural segments;

ordering the correlation of the present and determined future relative addresses according to the present relative addresses;

loading a database with the plural segments.

27. (Original) The method of claim 26 in which the plural segments are loaded in the data space in a second algorithmic order.

28. (Original) The method of claim 27 in which the second algorithmic order expresses an algorithm expressed in the selected first algorithmic order.

29. (Original) The method of claim 26 further comprising the steps of:

scanning a database having segments that participate in logical relations with one or more of the plural segments in the dataset;

after finding in the scanned database, a segment that participates in a logical relationship with a segment in the dataset, comparing the logical pointer of the found segment with the correlation of present and future relative addresses for the plural segments in the dataset to find the present relative address that corresponds to the logical pointer of the found segment; and

after finding the present relative address that corresponds to the logical pointer of the found segment, replacing the logical pointer of the found segment with the future relative address that is correlated with the present relative address that corresponds to the logical pointer of the found segment.

30. (Original) The method of claim 29 in which the plural segments are loaded in the data space in a second algorithmic order.

31. (Original) The method of claim 30 in which the second algorithmic order expresses an algorithm expressed in the first selected algorithmic order.

32. (Amended) A computer-implemented method for advance RBA resolution in reorganization of hierarchical databases, the method comprising the steps of:

establishing a counter having a state indicative of a location in a proxy dataset that correlates to the size of a block to be loaded., the state of the counter being used to determine a relative byte address (RBA) for a segment;

reading, according to an algorithmic order, each of a plurality of segments taken from a disorganized dataset of a hierarchical database;

in correspondence with an unload of a read segment of the plurality of segments, revising the state of the counter to contemplate the size of the read segment, the state of the counter used to determine the future RBA of the next read segment in the reorganized dataset;

recording of the future RBA of the segment next to be read in the algorithmic order; and

recording of the read segment present RBA.

33. (Original) The method of claim 32 in which the recording of future RBA's and present RBA' s is in a table.

34. (Original) The method of claim 33 in which the table is sorted by present RBA's.